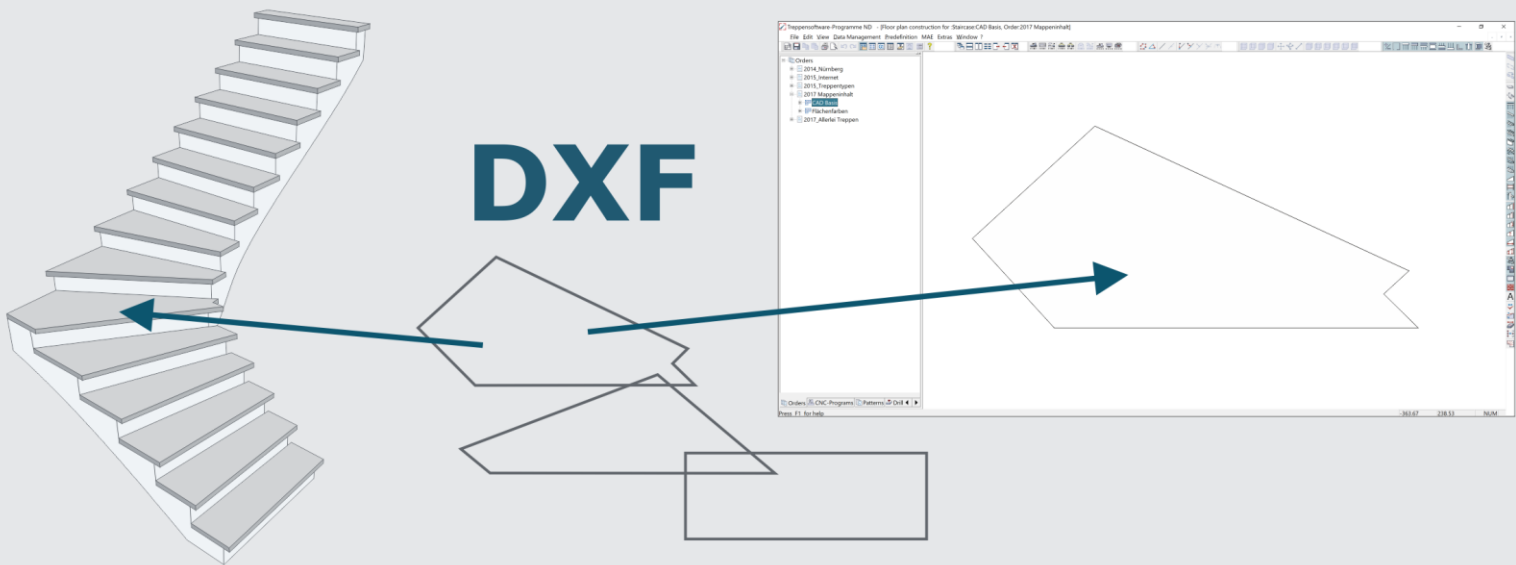




Compass Software

EXTERNAL STAIRCASE EXTERNAL STAIRCASE PLUS EXTERNAL STAIRCASE PLUS EXTENSION



INSTRUCTION MANUAL

Contents

1. General	3
2. Import DXF Data	3
3. Defining DXF Tread Data for Transfer	4
3.1 Toolbar „External tread“	4
3.2 Define Tread Edges	5
3.3 Transfer Treads	5
4. Import Treads from a Complete Groundplan Drawing	6
5. Edit DXF Data in the Free Form Construction Mode	7
5.1 Delete Lines	7
5.2 Prolong Lines	7
5.3 Shorten Lines	7
5.4 Parallel Lines	8
5.5 Finish the Free Form Construction	8
6. Additional Options External Staircase Plus	9
6.1 Automatism for Individual Treads	9
6.2 Automatism for Treads from Groundplan Drawing	10
6.3 Control and Editing of Imported Tread Data	11
6.4 Free Form Pockets (Version 10.8.8.0 and up)	12
6.5 Changing Already Existing Free Form Pockets	13
7. Additional Option Extension External Staircase Plus	14
7.1 Tread Import from Wagemeyer Program (DXF)	14
7.2 Tread Import from Wagemeyer Program (WTR)	15
8. Addition for Installation	15

Instruction Manual for External Staircase

External Staircase is a module that allows for the import of external tread data (DXF import). It is possible to import individual DXF tread data or to extract tread data from complete DXF groundplan drawings. The DXF tread data has to consist of closed polygons. Incomplete tread data can be corrected using the free form construction tool (see chapter 5). The imported tread data is integrated into the staircase software and can be used in the same way as internally constructed treads. The approach and individual steps will be explained in detail in the following chapters of this manual.

Important!

Chapters that are underlined red are not available in all versions and are only possible if the respective option has been purchased.

2. Import DXF Data

First, create a new order.

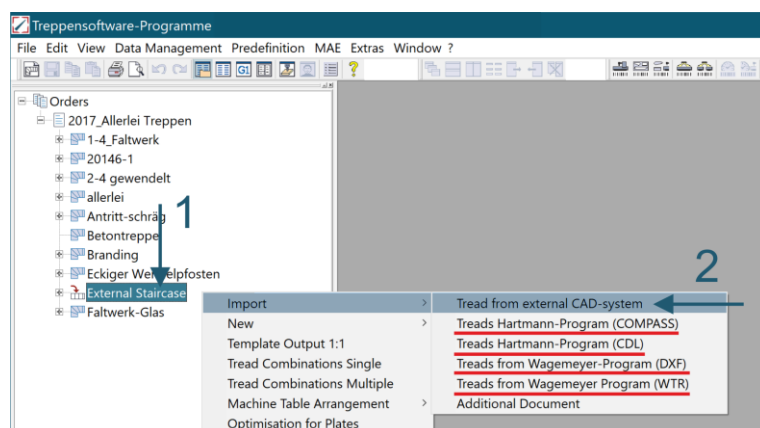
Click right on the new order.

In the pop-up menu select **new** (1) and then **external staircase** (2). Put in a name for the staircase.

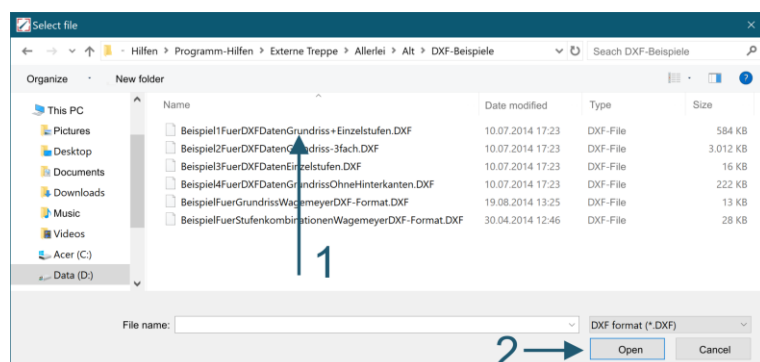


Now, click right on the new staircase (1).

In the menu select **import** and **treads from external CAD system** (2).



Go to the save location of the DXF file (1) and import the selected file by confirming with **open** (2).

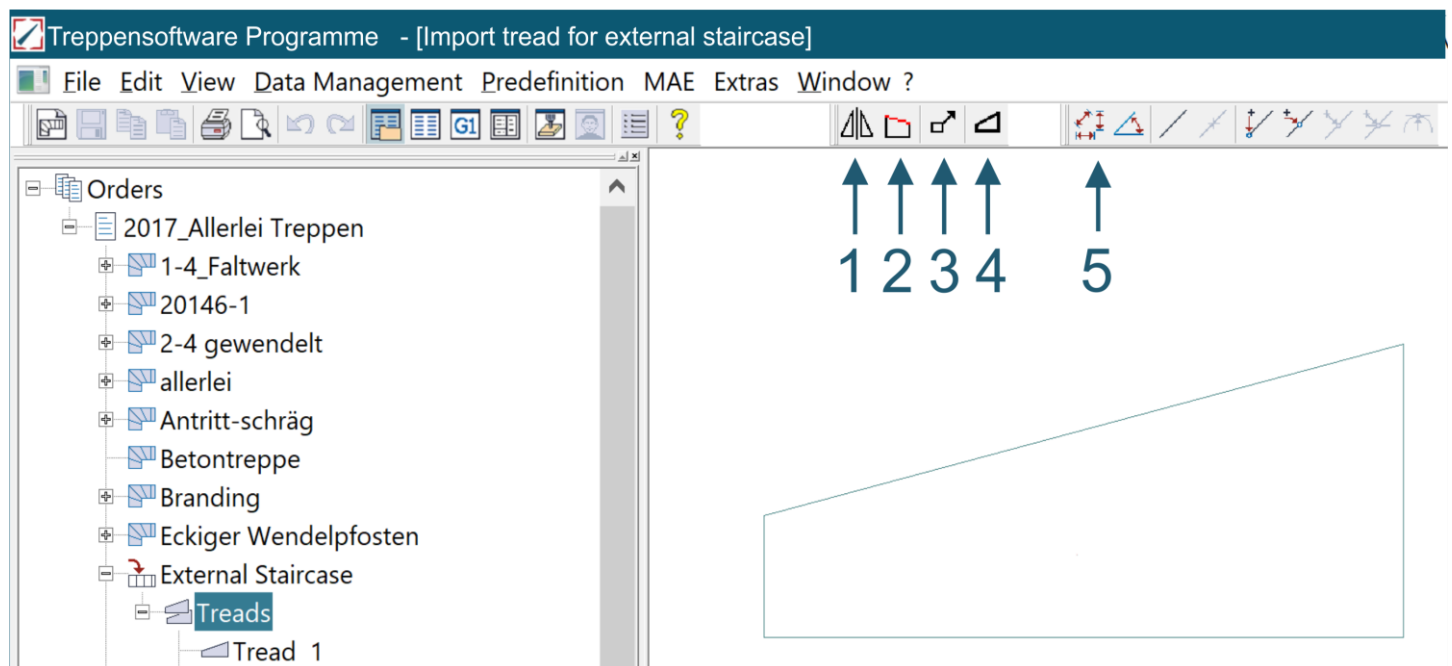


Instruction Manual for External Staircase

3. Defining DXF Tread Data for Transfer

This chapter will explain how to correct the imported DXF data if necessary, and then transfer it to the tree of orders.

3.1 Toolbar „External tread“



The **mirroring** (1) tool lets the user mirror already imported tread data.

The **free form construction** (2) tool allows users to edit or correct DXF data. Read more on how to do this in chapter 5. **Editing DXF Data with the Free Form Construction Tool.**

The tool **scale construction** (3) lets user make corrections if the scale of the imported data has been taken over incorrectly. We advise users to check the scale after the DXF import with the **measurement function** (5) (e.g. by measuring the tread front edge) and if necessary to correct the data by scaling the import by the respective factor.

The tool **define tread** (4) lets the user match each tread with the allocated type of tread edges and transfers them to the tree of orders. This can also be done via a menu or with the keyboard (see chapter 3.3).

Instruction Manual for External Staircase

3.2 Define Tread Edges

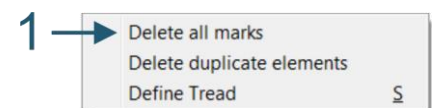
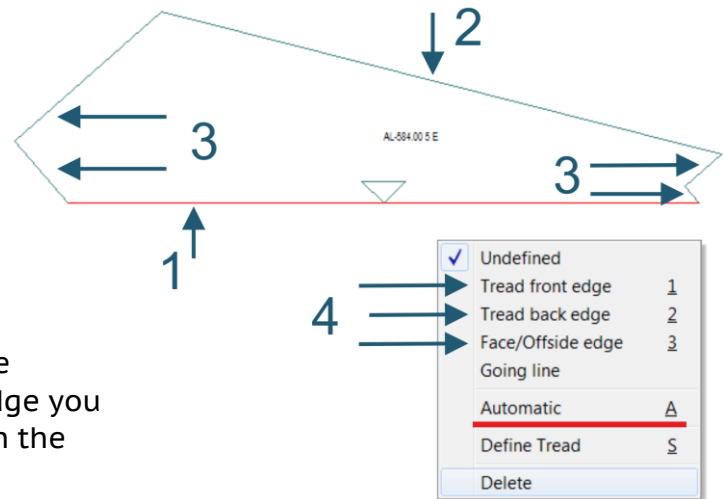
If the imported DXF data is correct, the first thing you have to do, is to assign the tread edges (also see chapter 4 and 5).

IMPORTANT! Adhere for the right order of treads. Start with tread 1.

To assign treads, click right on the tread edge you want to assign (1-3) and choose the correct tread edge type from the menu (4). This can also be done via the keyboard shortcuts. To do this select the edge you want to assign and press the respective number on the keyboard.

1 = tread front edge, 2 = tread back edge, 3 = tread side edge.
Repeat this process for all edges on the tread you are working on.

If you lose track of which edges have been assigned, you can click right into the free space outside of the tread to call up the pop-up menu shown on the right. There you can select **delete all marks** (1) and start over again.



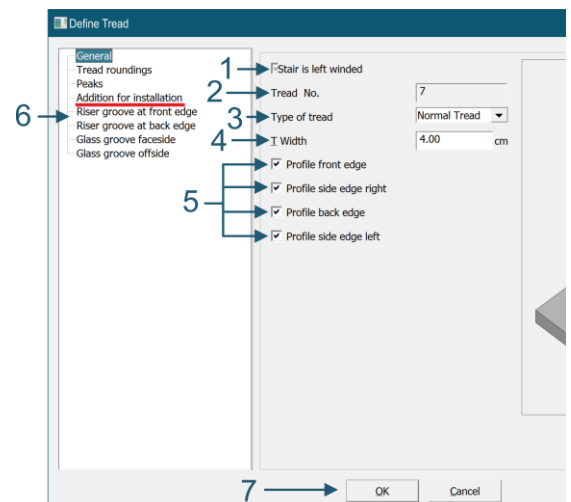
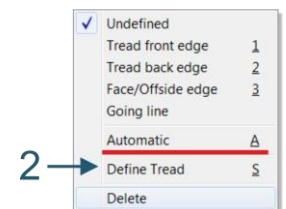
3.3 Transfer Treads

Once all edges have been assigned to their correct type, open the menu again with the left mouse key and select define tread (2). Again it is possible to do this via the short-key S = define tread.

Usually it is only necessary to enter values for the entrance tread in the **define tread** menu. The values are taken over for all other treads and only have to be adjusted for deviations.

- (1) Selection left/right winded staircase
- (2) Tread number, counted automatically
- (3) Tread type
- (4) Tread width
- (5) Check if you want to profile the front edge
- (6) Check if you want a groove for the riser
- (7) Confirm selection with **OK**.

The submenus additionally allow for values regarding tread roundings, suppression of pointed inside edges on treads, and allowance for assembly.



4. Import Treads from a Complete Groundplan Drawing

In order to identify the tread edges correctly it is recommended to edit the imported DXF data. When editing one should remove as many (unnecessary) elements as possible, until the tread outlines are clearly identifiable. Removable elements for deletion are, for example, close by lines, stringers, transverse spars, etc. (see arrows).

Approach:

Click right on the line you want to delete. From the menu select **delete** (1). Another way is to select the line with the left mouse key and then select the **DEL** key on the keyboard.

Elements that are overlapping can be deleted automatically. To do this click right in the empty space outside of the treads and select **delete duplicate elements** (2) from the pop-up menu (right).

IMPORTANT for all deletions!

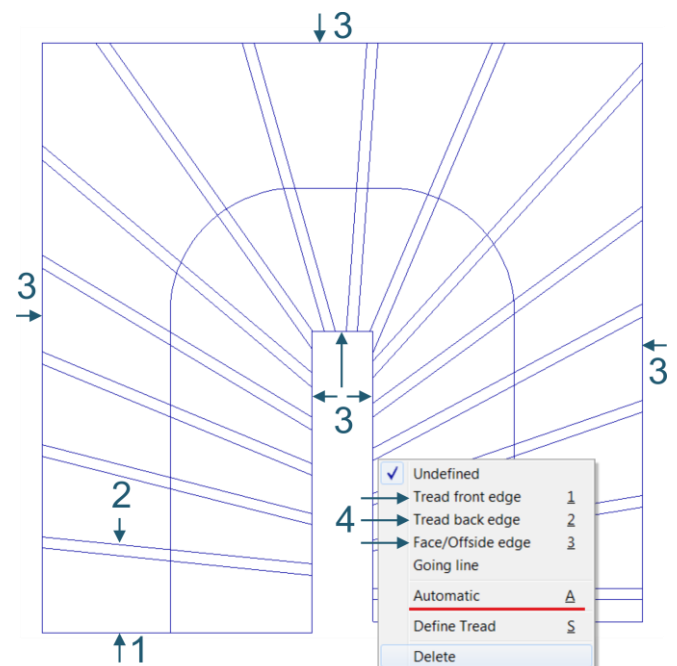
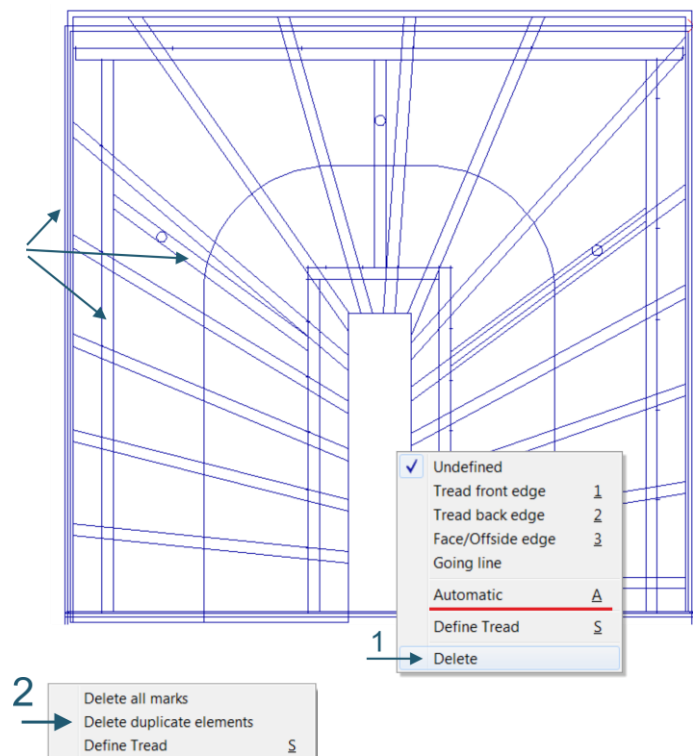
There is no UNDO-function. If you accidentally delete an element, you won't be able to undo the action. You will have to read in the entire DXF drawing again. UNDO and other alterations, such as prolonging/shortening lines, etc. are only possible in the free form construction mode (see chapter 5).

After filtering out the treads, you will have to assign the tread edges. To do this select the desired tread edge with a right click and select the appropriate **edge type** (4).

The **tread side edges** (3) are defined through the run faceside/offside.

Suggested Approach:

Assign all side edges first. Then assign the front and back edge of the first tread and transfer it as described in chapter 3.3. Then proceed with the front and back edge of the 2. tread and so on. **IMPORTANT!** Keep the order of treads. This is possible to be done via keyboard short-cuts (see chapter 3.2).



Instruction Manual for External Staircase

5. Edit DXF Data in the Free Form Construction Mode

If you have to delete many lines or the DXF data is faulty (lines overlap, polygons are not closed, etc.), you are able to correct these in the free form construction mode.

To do this, import the DXF data and then select **external staircase** in the toolbar and then **free form construction** (2).

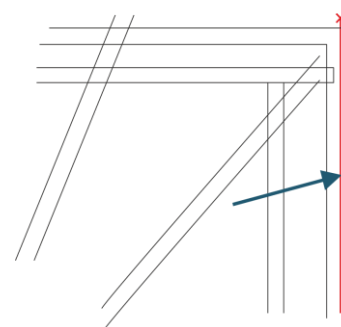
This mode allows for the prolongation, shortening, deletion, or moving of lines. Here you will also be able to UNDO changes.



5.1 Delete Lines

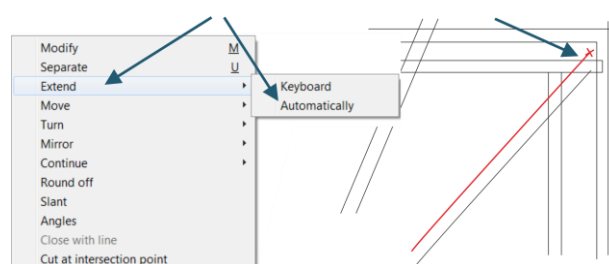
With the left mouse key select the line you want to delete and remove it by clicking the **DEL** button.

It is also possible to delete several elements at once. To do this keep the left mouse key engaged and draw a field over the elements you want to delete by dragging the cursor diagonally. By clicking **DEL** (on the keyboard), you will delete all elements that are entirely inside the drawn field.



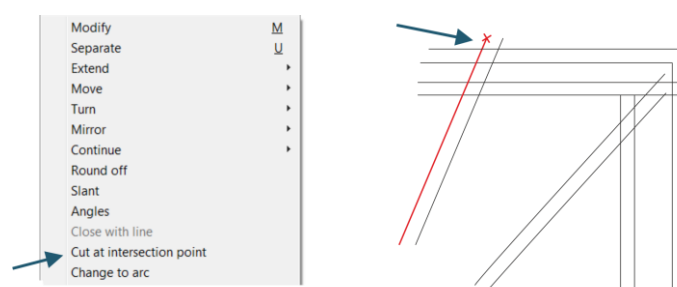
5.2 Prolong Lines

Click right on the line you want to extend and select **extend** and then **automatically** (you might have to repeat this process if the line hasn't reached the end-point yet, due to intersecting lines).



5.3 Shorten Lines

Click right on the line you want to shorten and select **cut at intersection point** from the menu (you might have to repeat this process if the line hasn't reached the end-point yet, due to intersecting lines).



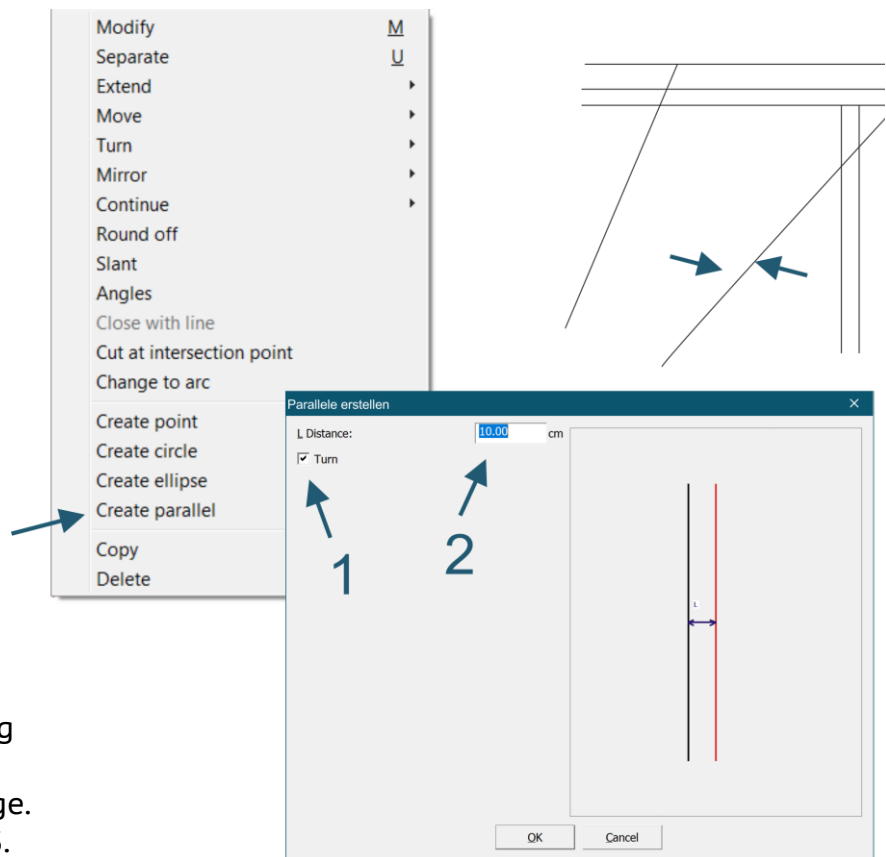
Instruction Manual for External Staircase

5.4 Parallel Lines

If the DXF tread data does not provide back edges in the groundplan drawing, you will have to draw those. To do this click left on the tread front edge and select **create parallel** from the menu.

In the dialog you can define via the function **turn** (1), whether the parallel line will be drawn in front of or behind the tread front edge. Then enter how much the tread is to **protrude** (2) and confirm with **OK**.

In some cases, it is necessary to prolong or shorten the parallel line on the left or right side to reach the tread side edge. Follow the steps in chapters 5.2 and 5.3.

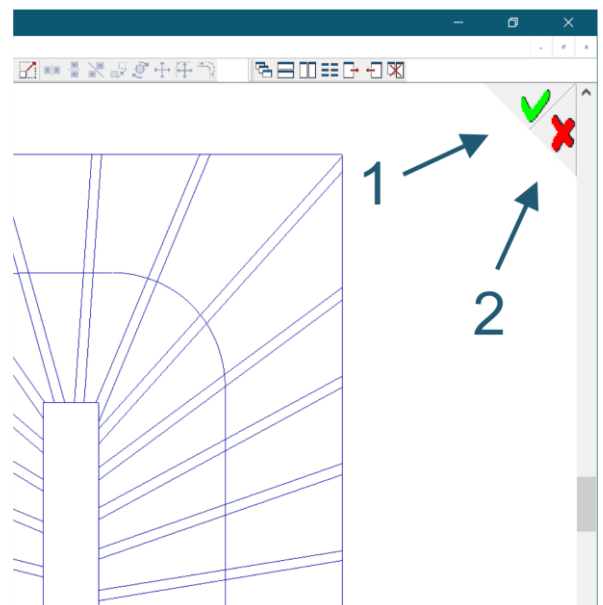


5.5 Finish the Free Form Construction

Once you have deleted and edited all faulty data you can leave the free form construction mode via the green check mark (1), which will also save all changes.

Then you can transfer the treads into the tree of orders, as described in chapters 3 and 4.

You can cancel the free form construction by clicking on the red X (2).



Instruction Manual for External Staircase

6. Additional Options External Staircase Plus

The advanced option **External Staircase Plus** additionally offers the possibility to automate the import of DXF tread data. This automatic mode saves a lot of time when dealing with a big amounts of data and can be used for the import of individual treads and importing treads from groundplan drawings.

The approach (import of DXF data, editing of tread polygons if necessary) is identical to the processing steps described for the option **External Staircase** in the chapters above.

The tread edges are assigned and treads are transferred using the automatism.

6.1 Automatism for Individual Treads

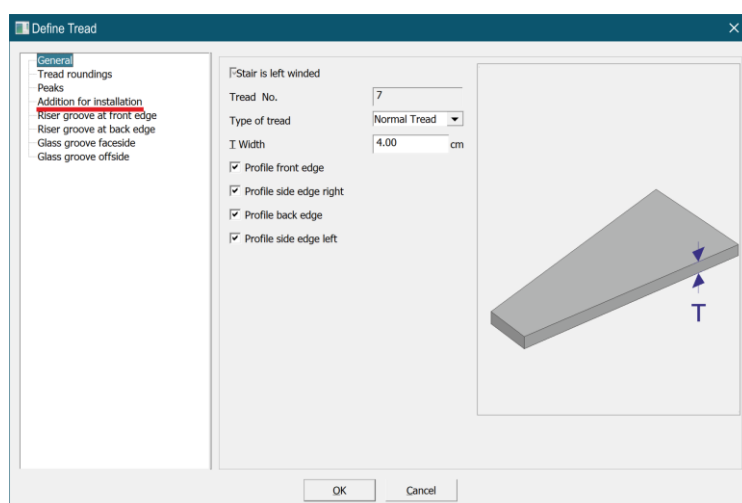
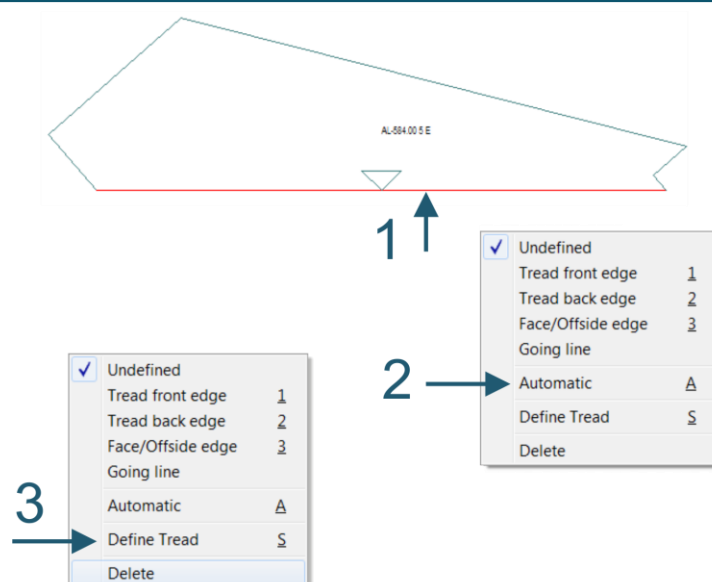
With a right click select the **tread front edge** (1) and choose **automatic** (2). This will assign all tread edges automatically.

IMPORTANT! Maintain the correct order of treads, start with tread 1.

Once again, you can do this using the keyboard. To do this select the tread front edge with the right mouse key and call up the transfer menu with the keys **A** (automatism) and **S** (define tread).

The menu that pops up (right) has to be filled in as discussed in chapter 3.3. Selecting **OK** transfers the treads.

Repeat these steps for all treads (also see chapter 6.3).



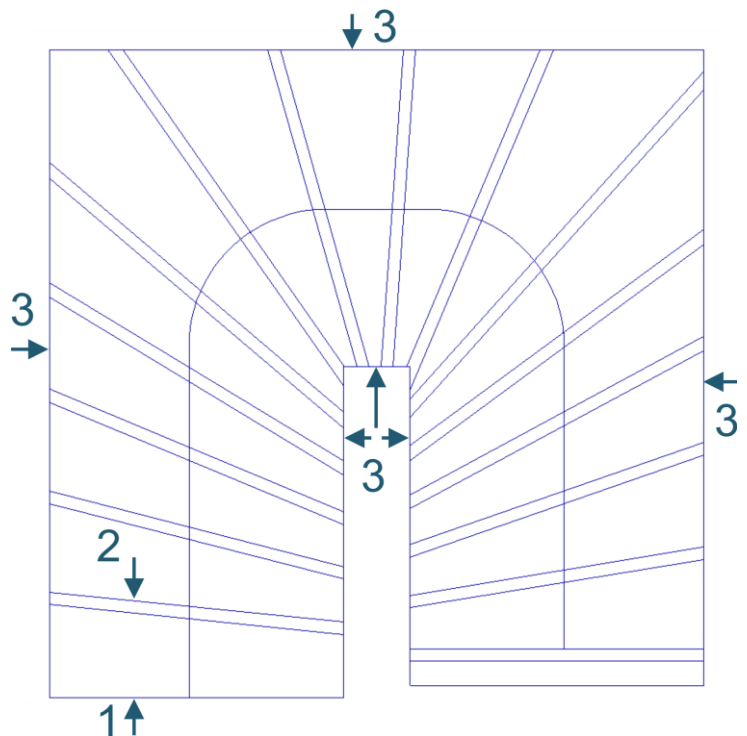
Instruction Manual for External Staircase

6.2 Automatism for Treads from Groundplan Drawing

Starting with a groundplan drawing you will first have to assign all tread side edges. To do this select the side edges (3) of the individual runs one after the other with a right click and mark them as side edges with **3** on the keyboard.

Then select the **front edge** (1) of the first tread and confirm it as the front edge with **1** on the keyboard. Then proceed with the back edge (2) and confirm with **2** on the keyboard.

The treads are transferred via the **S** key on the keyboard. In the pop-up menu follow the steps described in chapter 3.3 and transfer the first tread by clicking **OK**.

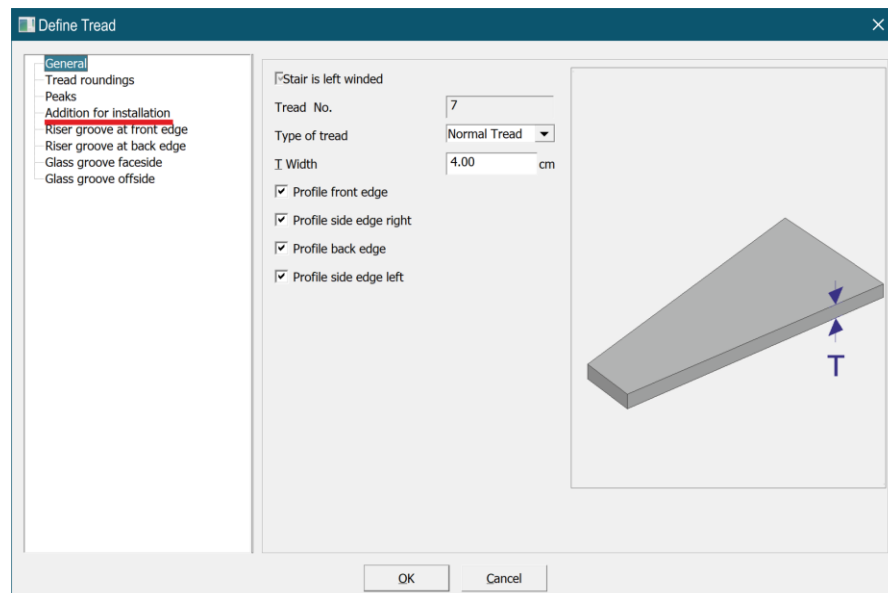


After successful transfer, the next step will appear with automatic edge assignment.

Call up the transfer menu again with the **S** key and transfer the tread. Repeat these steps until you have reached the second to last tread.

For the last tread (exit tread), you also have to assign the back edge.

To do this select the back edge with the left mouse key and hit **2** on the keyboard, marking it as the back edge. Then transfer the tread with the **S** key.



This finishes the transfer for all treads (also see next chapter).

Instruction Manual for External Staircase

6.3 Control and Editing of Imported Tread Data

After importing all of the tread data, the user can view the individual treads in the tree of orders (double click left on the respective tread).

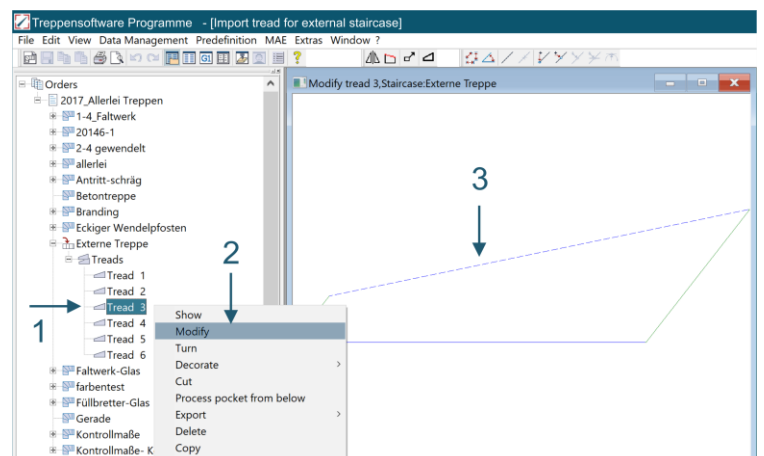
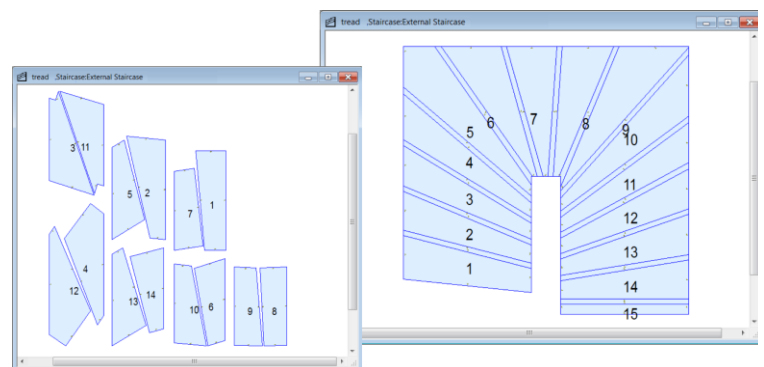
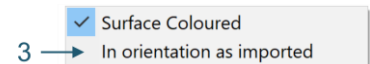
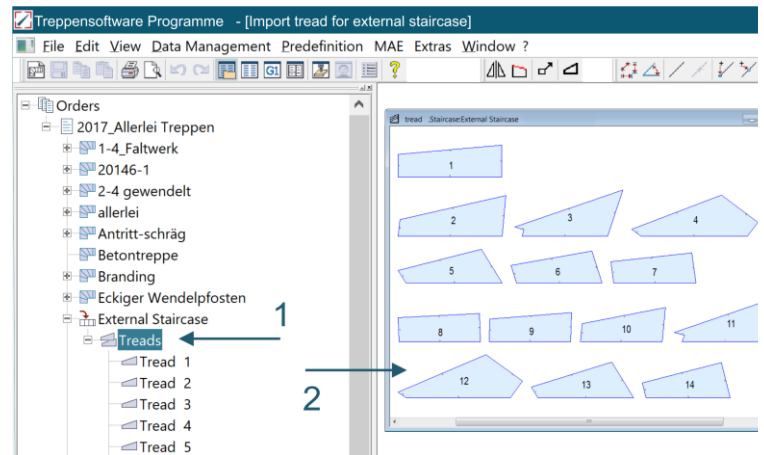
It is also possible to select all treads by double clicking on the **tread node** (1). This will open a window which displays all treads in order.

This function also offers another advantage. Click right on the **display window** (2). Select **In orientation as imported** (3) from the menu.

This will arrange all imported treads into the position they have been imported in (see example on the right). This gives you a great opportunity to control the data before further processing.

It is also possible to change the imported treads. Important!
If some of the parameters have to be edited after tread import.

To do this select the desired **tread** (1) and then **modify** (2). To change any of the parameters click on the **tread edge** (3) and proceed as was described in chapters 6.1 and 6.2. Make the desired changes. To change tread polygons (free form construction), follow the steps described in chapter 5.



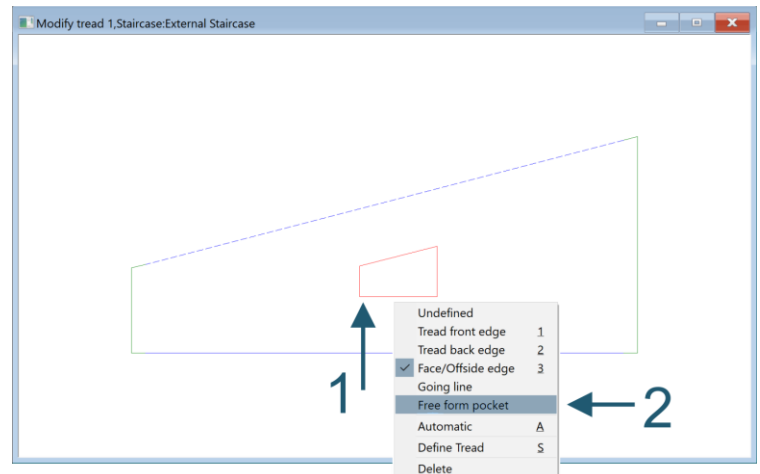
Instruction Manual for External Staircase

6.4 Free Form Pockets (Version 10.8.8.0 and up)

This extension will also import existing free form pockets when importing tread data. Furthermore, it is possible to add your own pockets via the free form construction mode.

After the DXF import of tread data with free form pockets, you have to define the pockets first. To do this click right on one of the **pocket polygone's** (1) sides and select **free form pocket** (2).

In the menu that appears you will set under (1) whether the pocket will be processed from the top or the bottom. Then you will enter the depth of the pocket. Save all changes with OK (picture with dotted line = pocket from below).



Continue as described in chapter 3.2 **Define Tread Edges** and 3.3 **Transfer Treads**.

You can make changes later through the **modify** function (see chapter 6.3 last picture).

Draw free form pockets:

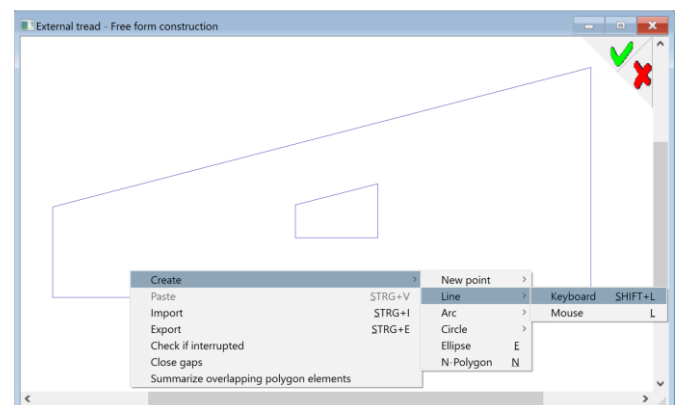
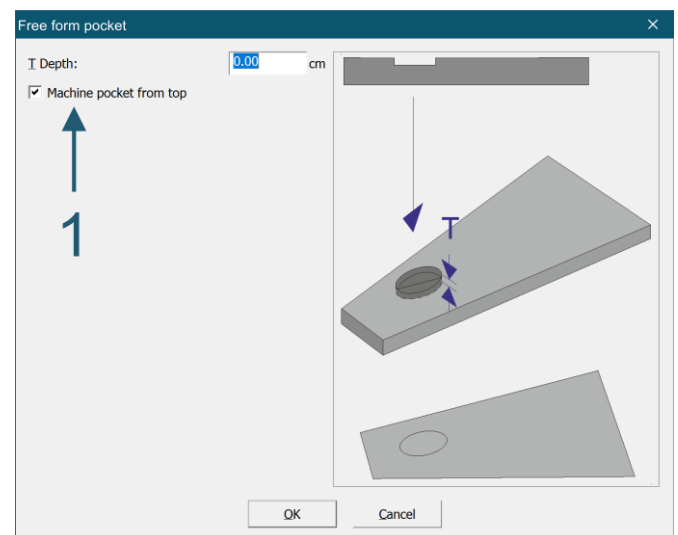
If you want to define pockets when importing treads, you can do this with the versatile free form construction tool.

To do this (after importing the tread data) select the **free form construction** (2) in the **external staircase** tool bar.



There you can design the polygone using lines and arcs.

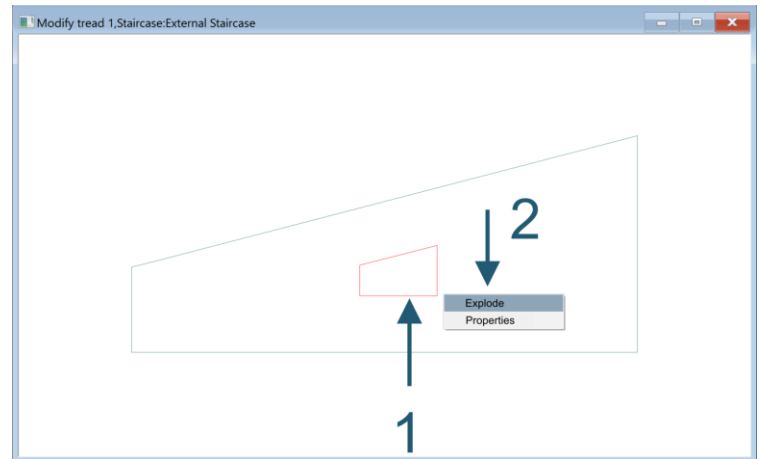
After saving the pocket repeat the further steps (as described from the beginning of this chapter).



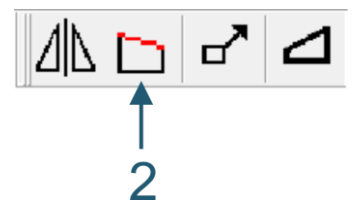
6.5 Changing Already Existing Free Form Pockets

It is also possible to change already allocated free form pockets after import. To do this you have to explode the pocket.

Click right on one of the sides of the **pocket polygon** (1) and click on **explode** (2).



This will take over the existing pocket polygon into the **free form construction** (2), where it can be modified.



After saving the free form construction all further steps are the same as described in the beginning of this chapter.

You will have to re-allocate the tread edges. Only after doing that you will be able to define and save the tread data.

Instruction Manual for External Staircase

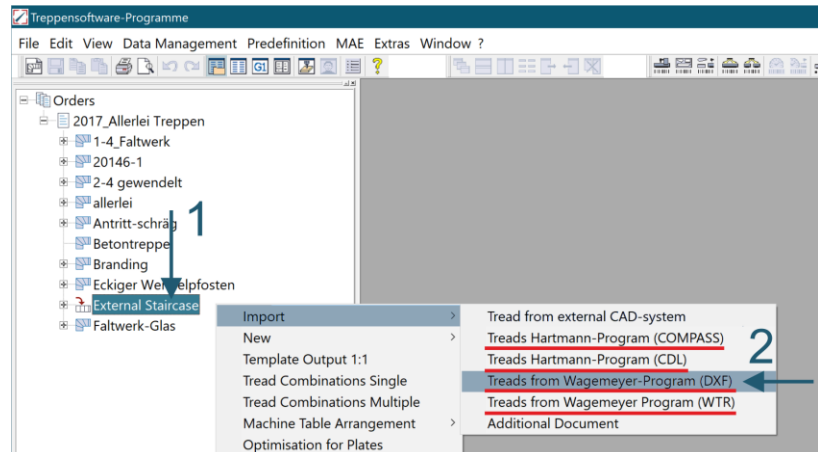
7. Additional Option Extension External Staircase Plus

7.1 Tread Import from Wagemeyer Program (DXF)

This extension allows the user to automatically import and transfer DXF tread data from the Wagemeyer program into the tree of orders. Users do not have to assign edges or modify the data any further.

After creating the **staircase** (1) select **Treads from Wagemeyer Program (DXF)** (2).

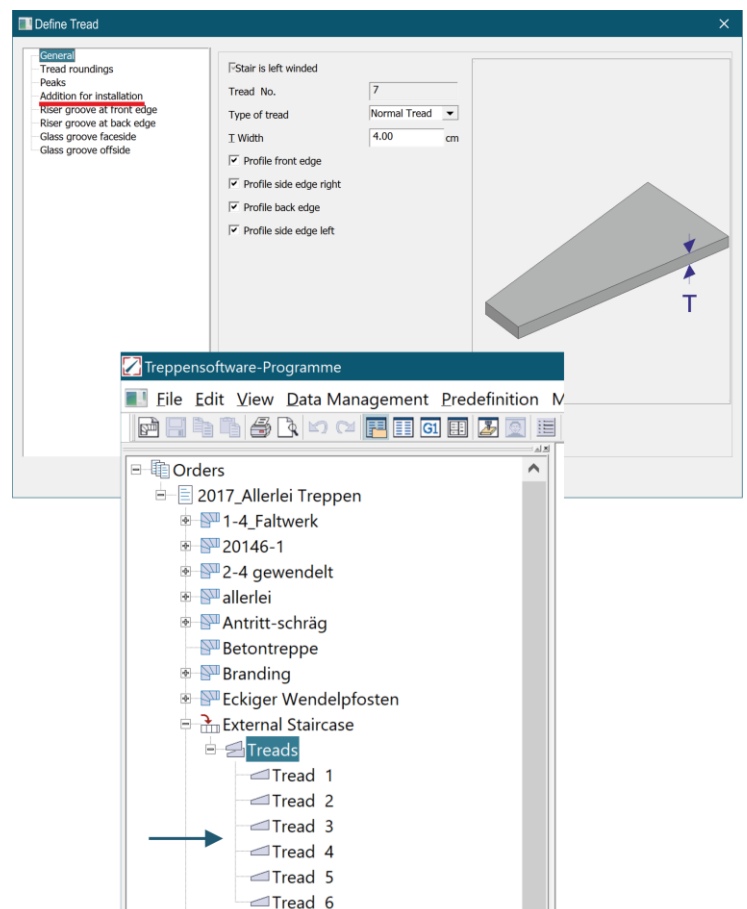
Navigate to the file location and select the respective file (see chapter 2).



A menu appears which lets you set additional properties to satisfy special circumstances of the particular order:

- Set tread thickness and possible drilling depth
- whether to profile tread edges and which ones
- whether treads are to be rounded
- whether to cut off small tread peaks
- whether to construct additions for assembly on the tread sides.

After setting up all desired properties leave the menu by confirming with **OK**, and all treads are automatically transferred to the tree of orders (also see chapter 6.3).

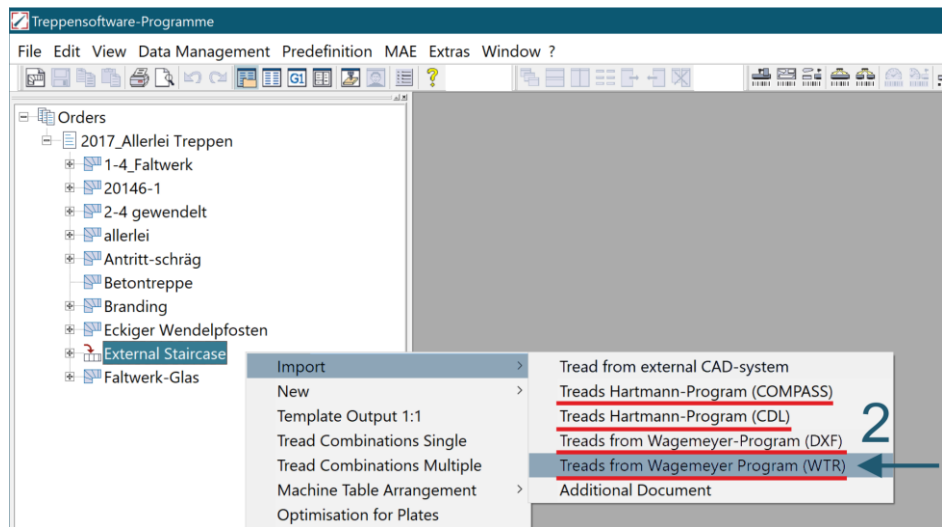


Instruction Manual for External Staircase

7.2 Tread Import from Wagemeyer Program (WTR)

The same procedure as above applies. The only difference is the file format (WTR tread data).

Instead select **Tread from Wagemeyer Program (WTR)** (2) (also see chapter 6.3).



8. Addition for Installation

If the option addition for installation is enabled in your program, you will be able to prolong the imported tread inside and/or outside edges (this is done to adjust the distance to the wall manually when at the construction site).

To do this go to **addition for installation** (1) when importing the tread (define tread). There you can select left and/or right **with lengthening** (2) and enter the desired value.

This addition is also possible later in the tree of orders under treads/ tread 1, tread 2...

